

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P431764

Luminaire Tested: **LAMR4B312R709030DE01021MB**

Issue Date: 11/23/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P431764  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2007-857-14)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 11/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LAMR4B312R709030DE01021MB  
Description: PORTFOLIO 4INCH ADJUSTABLE MULTIPLE, 70 DEG TIR OPTIC  
Light Source: HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3439.0 lumens  
Efficiency: N/A  
Efficacy: 84.1 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1.1 / 1.09  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

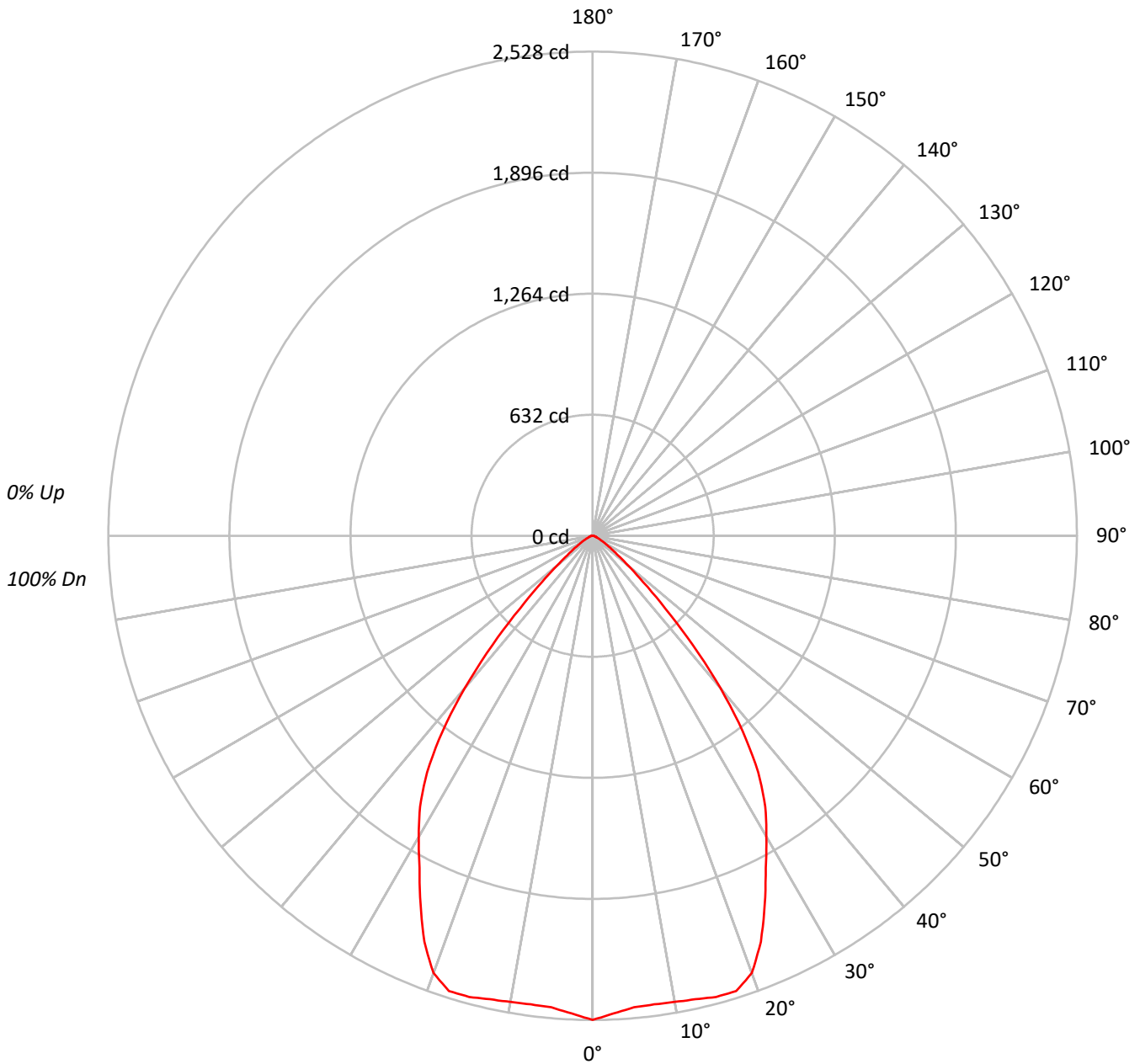
Input Watts (W): 40.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92			
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	88	86	84			
3	100	93	87	83	98	91	86	82	89	84	81	86	82	79	84	81	78	76			
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70			
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64			
6	83	73	66	62	82	72	66	61	71	65	61	69	64	60	68	64	60	58			
7	78	68	61	56	77	67	61	56	66	60	56	65	59	56	63	59	55	54			
8	74	63	57	52	73	63	56	52	62	56	52	60	55	51	59	55	51	50			
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	47	46			
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	48	44	43			

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	1247165
5°	1223946
10°	1238098
15°	1273129
20°	1275331
25°	1157034
30°	1033845
35°	907975
40°	668536
45°	374409
50°	184292
55°	103222
60°	62659
65°	41210
70°	30582
75°	26878
80°	20173
85°	19813



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	236.2	6.9
10°-20°	702.3	20.4
20°-30°	974.7	28.3
30°-40°	917.0	26.7
40°-50°	437.8	12.7
50°-60°	115.7	3.4
60°-70°	36.5	1.1
70°-80°	14.9	0.4
80°-90°	3.8	0.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1913.3	55.6
0°-40°	2830.3	82.3
0°-60°	3383.7	98.4
0°-90°	3439.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3439.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2528	
5°	2471	236
15°	2492	702
25°	2125	975
35°	1508	917
45°	537	438
55°	120	116
65°	35	37
75°	14	15
85°	4	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2527.8
2.5°	2496.1
5°	2471.3
7.5°	2467.8
10°	2471.3
12.5°	2478.4
15°	2492.5
17.5°	2492.5
20°	2429.0
22.5°	2294.8
25°	2125.4
27.5°	1955.9
30°	1814.7
32.5°	1677.0
35°	1507.5
37.5°	1288.6
40°	1038.0
42.5°	773.2
45°	536.6
47.5°	356.6
50°	240.1
52.5°	165.9
55°	120.0
57.5°	84.7
60°	63.5
62.5°	45.9
65°	35.3
67.5°	24.7
70°	21.2
72.5°	17.7
75°	14.1
77.5°	10.6
80°	7.1
82.5°	7.1
85°	3.5
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)